

REMARKS

The Office Action of November 21, 2005, has been received and reviewed.

Claims 1-9 and 12-34 are currently pending in the above-referenced application. Of these, claims 4, 9, and 23-34 have been withdrawn from consideration pursuant to an election of species requirement. Each of claims 1-3, 5-8, and 12-22, which have been considered, stands rejected.

Reconsideration of the above-referenced application is respectfully requested.

Rejections under 35 U.S.C. § 102

Claims 1-3, 5-8, and 2-22 stand rejected under 35 U.S.C. § 102(e).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single reference which qualifies as prior art under 35 U.S.C. § 102. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Crumly

Claims 1-3, 5-8, 12, 13, 15-17, 19, and 20 have been rejected under 35 U.S.C. § 102(e) for being drawn to subject matter which is purportedly anticipated by that described in U.S. Patent 5,946,555 to Crumly et al. (hereinafter "Crumly").

Crumly describes a process in which a preformed element, which Crumly refers to as a "substrate decal 16," such as a flexible polyimide film or a circuit board, is positioned over a semiconductor device 12. FIG. 1. The substrate decal 16 of Crumly includes apertures 27, which are aligned with corresponding bond pads 14 of the semiconductor device 12 as the substrate decal 16 is positioned over the semiconductor device 12. FIG. 1. Once the substrate decal 16 has been positioned over and adhered to the semiconductor device 12 with adhesive 24 (FIG. 2), conductive material 32 is introduced into the apertures 27 of the substrate decal 16 and in contact with the bond pads 14 of the semiconductor device 12 (FIG. 3). Crumly indicates that

sputtering or electrolytic deposition processes may be used to introduce conductive material into the apertures 27. Col. 2, lines 9-23.

Independent claim 1, as amended and presented herein, recites a method that includes introducing conductive material in an at least partially liquid state into apertures of a preformed film once the film has been placed over a semiconductor device. As the description of Crumly is limited to processes (sputtering and electrolytic deposition) that do not include introduction of conductive material in an at least partially liquid state into the apertures 27 of the substrate decal 16, Crumly does not anticipate each and every element of amended independent claim 1.

Therefore, under 35 U.S.C. § 102(e), the subject matter recited in amended independent claim 1 is allowable over the subject matter described in Crumly.

Each of claims 2, 3, 5-8, 12, 13, 15-17, 19, and 20 is allowable, among other reasons, for depending directly or indirectly from claim 1, which is allowable.

Fjelstad

Claims 1-3, 5-7, and 12-22 are rejected under 35 U.S.C. § 102(e) for being directed to subject matter that is allegedly anticipated by the subject matter disclosed in U.S. Patent 6,284,563 to Fjelstad (hereinafter “Fjelstad”).

The disclosure of Fjelstad relates to, among a variety of other things, placing polymeric sheets on and adhering them to semiconductor devices 100 to form passivation layers 130 over the semiconductor devices 100. Col. 8, lines 39-41. Once the passivation layer 130 has been applied to the semiconductor device 100, a registering system is used to locate contacts 110 of the semiconductor device. Col. 8, lines 41-43. Thereafter, removal processes are used to “selectively remove the passivation layer 130 above the contacts 110.” Col. 8, lines 46-49. Conductive material 150 is then plated onto the exposed contacts 110. Col. 9, lines 24-62.

Fjelstad does not expressly or inherently describe “positioning a preformed polymeric film *including at least one aperture . . .* over a semiconductor device” (emphasis supplied) or “introducing conductive material in an at least partially liquid state into the at least one aperture,” as are required by amended independent claim 1. Therefore, Fjelstad does not anticipate each

and every element of independent claim 1, as would be required to maintain the 35 U.S.C. § 102(e) rejection of that claim.

Claims 2, 3, 5-7, and 12-22 are each allowable, among other reasons, for depending directly or indirectly from claim 1, which is allowable.

Withdrawal of the 35 U.S.C. § 102(e) rejections of claims 1-3, 5-8, and 2-22 is respectfully solicited.

Rejections under 35 U.S.C. § 103(a)

Claims 8, 14, 18, 21 and 22 stand rejected under 35 U.S.C. § 103(a).

The standard for establishing and maintaining a rejection under 35 U.S.C. § 103(a) is set forth in M.P.E.P. § 706.02(j), which provides:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Fjelstad in View of Crumly

Claim 8 stands rejected under 35 U.S.C. § 103(a) for reciting subject matter which is assertedly unpatentable over the subject matter taught in Fjelstad, in view of teachings from Crumly.

Claim 8 is allowable, among other reasons, for depending indirectly from claim 1, which is allowable.

Crumly in View of Fjelstad

Claims 14, 18, 21, and 22 are rejected under 35 U.S.C. § 103(a) for being directed to subject matter that is purportedly unpatentable over the teachings of Crumly, in view of the subject matter taught in Fjelstad.

Each of claims 14, 18, 21, and 22 is allowable, among other reasons, for depending indirectly from claim 1, which is allowable.

Crumly, Fjelstad, and Jacobs

Claims 21 and 22 have been rejected under 35 U.S.C. § 103(a) for reciting subject matter which is allegedly unpatentable over teachings from Crumly, Fjelstad, and U.S. Patent 6,294,407 to Jacobs (hereinafter “Jacobs”).

Claims 21 and 22 are both allowable, among other reasons, for depending indirectly from claim 1, which is allowable.

It is respectfully requested that the 35 U.S.C. § 103(a) rejections of claims 8, 14, 18, 21 and 22 be withdrawn.

Election of Species Requirement

It is respectfully submitted that independent claim 1 remains generic to all of the species of invention of the second group that was identified in the Election of Species Requirement in the above-referenced application. In view of the allowability of these claims, claims 4, 9, and 23-34, which have been withdrawn from consideration, should also be considered and allowed. M.P.E.P. § 806.04(d).

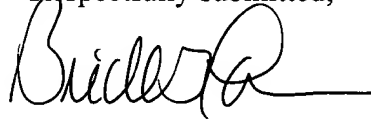
CONCLUSION

It is respectfully submitted that each of claims 1-9 and 12-34 is allowable. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication that the above-referenced application has been passed for issuance. If any issues preventing

Serial No. 09/832,160

allowance of the above-referenced application remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Brick G. Power", with a stylized flourish at the end.

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Date: February 21, 2006
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Document in ProLaw